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Comments on the WAG 3 Proposed Plan

These comments are submitted in response to the Proposed Plan for the Waste Area Group 3 at the Idaho Chemical Processing Plant, Idaho National Engineering and Environmental Laboratory.

General Comments:

This Plan does not mention the fate of of "IDW" still present at ICPP. Please ensure IDW is addressed in the ROD.

There are a number of environmental media at ICPP which are known to be contaminated with RCRA listed waste. They include the tank farm perched water system, the aquifer, and several soil wastes. There are other soil wastes which may be contaminated with RCRA listed wastes. It would be a good idea to address these problems through a risk-based delisting in the ROD. By establishing risk-based delisting concentrations in the ROD, then media meeting those concentrations could be managed as non-listed (though they might still exhibit a characteristic of hazardous waste). This would simplify issues of AOC and LDR at the ICDF, if it is built.

There are a number of sites in this Plan which are not properly characterized. I am appalled that the agencies have conducted Track 1/Track 2 investigations followed by an RI/FS and still have not managed to characterize the site. This is the fault of all involved. All three agencies developed the conceptual site models; all agreed to the Track 1/Track 2 reports; all agreed to the RI/FS SOW. Untold money and precious time have been wasted, largely through blind incompetence. Since all agencies are at fault, these sites should be removed from the Plan and subsequent ROD until characterization is complete. This should be done without regard to "fault" or enforceable milestones in the FFA/CO.

Some sites in this Plan either do not appear to present a real risk to human health/environment (or it has not been shown they do). These sites should be removed from the Plan or a viable risk should be demonstrated.

The idea for an ICDF should be scrapped. That the agencies, and

DEQ in particular, should conceive of such an idea above a sole source aquifer is ludicrous. Such a facility cannot be made "safe" for the many hundreds of years necessary for the radionuclides to decay. It cannot be made "safe" for the hazardous and PCB wastes which will not decay and which will eventually leak and reach the aquifer. The double liners and leachate collection system merely delay the inevitable. This facility is a transparent attempt by the agencies to avoid treating mixed waste to LDR standards prior to disposal. Please describe how a groundwater monitoring system would be designed to detect releases from the ICDF when the "background" concentrations of contaminants is already high? Where would the upgradient "clean" well(s) be located? Where would the downdgradient wells be located so that only contamination from the ICDF would be detected?

Most of the Alternative include continued "environmental monitoring". The fact is few, if any, of these sites are currently subject to site-specific environmental monitoring. Your portrayal that they are is misleading, at best, and a damned lie, at worst. The INEEL cannot detect contaminant releases from any specific site, and would be lucky to detect additional releases from the ICPP as a whole.

More specific comments are:

1. Page 13, Soils under buildings, 1st paragraph: Please note that several of these spills, in addition to CPP-80, included both RCRA listed and characteristic waste. The soils must be managed as listed waste, and possibly as characteristic waste. This is important so that people understand how much hazardous waste is proposed for disposal at the proposed ICDF.

2. Page 13, Soils under buildings, 2nd paragraph: If the sites are inaccessible and poorly characterized how were the COCs in the sidebar determined? How are the agencies sure risk even exists at those sites which have not been sampled? Those sites which have not been characterized and determined to present a risk to human health and the environment should be removed from this Proposed Plan and discussed in the future when COCs, risk, and fate and transport are better understood.

3. Page 14, Other Surface Soils, 1st paragraph. Soil which is currently stored in boxes and which was not generated during CERCLA investigation or removal activities (CPP-92), should not be included in this Group. This waste is no different than any other waste generated by the INEEL during routine maintenance or upgrade activities. The INEEL has facilities

and methods to manage and dispose of such routine waste. It should not be included in CERCLA simply because it simplifies, and may reduce, regulatory compliance requirements. Including this kind of soil in the CERCLA program allows the INEEL a way to circumvent the RCRA disposal requirements which might otherwise attach to the soil. Remove boxed soils which did not originate from the CERCLA program from this Group.

4. Page 14, Other surface soils, 2nd paragraph. CPP-36 and -91 have contamination which reaches to the basalt, about 40 ft bgs. Thus the risk from this soil can be attributed to direct exposure only for that soil which is between 0-10 ft bgs. Is there another, viable, risk pathway for the soil below 10 ft bgs? If not, the proposed remedial action need not address the deeper soil contamination.

5. Page 14, Other surface soils, 2nd paragraph. The last sentence states that "nonradionuclide contaminants" are included in the COCs. Please state whether these soils are contaminated with RCRA listed waste or exhibit a characteristic of hazardous waste. This is important to determine how much hazardous waste is being proposed for disposal in the ICDF.

6. Page 14, Perched Water, 2nd paragraph. Please make it clear the perched water has been contaminated with RCRA listed waste. Please be specific regarding which of the Idaho Groundwater Quality Stds may be impacted and during what time frame that impact is expected to occur. What evidence exists that the perched water is a transport pathway between surface soils and the deep aquifer? If contaminants are absorbed/adsorbed onto surficial soil and layers of soil in the basalt, what is the Kd for release of those contaminants to water percolating through the soil? Your statements do not seem well researched or documented. This is a different issue than contaminants, already in surface percolation water, or perched water, continuing to the aquifer. Please identify whether the perched water presents a risk to the aquifer from the contaminants already in the perched water or from additional contaminants leached from soil by percolating surface water. This question is important when evaluating remedial alternatives.

7. Page 15, Snake River Plain Aquifer, 2nd paragraph. Please note that RCRA listed waste entered the aquifer through injection well discharges.

8. Page 15, Buried Gas Cylinders. Please note that the acetylene cylinders may contain liquid acetone used to

dissolve the acetylene gas. Based on the site description, this site is not well characterized and risk to human health and the environment has not been determined. Suggest this be done prior to conducting a remedial action. An argument of immediate safety concerns at this site is not tenable. The cylinders were buried decades ago and there has been no safety disaster. The site is now controlled to prevent entrance or disturbance. Conduct a real investigation before deciding on a remedial action.

9. Page 16, Buried Gas Cylinders, 1st full paragraph. Please note that the HF in the tanks, if any, is a RCRA listed waste. Please modify the last sentence to read : "Fluoride, a chemical ~~residual~~ component of...".

10. Page 16, SFE-20, 1st paragraph. Please identify whether the waste in the tank is a RCRA listed or characteristic waste. If this is not known, then conduct a proper CERCLA investigation before publishing a Proposed Plan. The 1984 investigation was not a CERCLA preliminary investigation. Don't characterize it as such. Please identify whether the vault has leaked. Suggest removing this site from the Proposed Plan until it is properly characterized.

    There are two conflicting statements in this paragraph: "The tank was removed from service in 1977" and "In 1976, the SFE-20 tank system was taken out of service...". Which is it? I am enraged at the sloppiness that allows this type of error to be found in a Proposed Plan and wonder what it indicates of the underlying technical abilities of the people investigating and planning remedial action for this site.

11. Page 17, Human Risk Assessment, second full paragraph. "Risks to the current worker and future worker (beyond 2095)..." What happened to the future resident beyond 2095? The first paragraph of this section includes future residents in the risk assessment. Were future residents included or not?

12. Page 17, Eco Risk,1st paragraph. Is Eco risk to be performed on an INEEL-wide basis or a WAG-by-WAG basis? Please identify how the agencies propose to address eco risk such that species ranging the entire INEEL will be protected.

13. Page 18, SFE-20. "...no exposure pathway currently exists." If there is no exposure pathway, then why is this unit included in CERCLA? Since the tank is contained within a vault, then the "risk of release" is certainly small, and

again the tank/contents have no place in the CERCLA program. Suggest the tank and contents be managed under the either the D&D program or RCRA Closure. If a release from the vault has occurred (not identified in this Plan) then the resulting soil contamination is a candidate for CERCLA investigation and remediation. Suggest this site be removed from the Proposed Plan until a proper investigation has been conducted.

14. Page 19, *All Environmental Media*. The RAO of 2E-4 is consistent neither with NCP nor the statement on page 17 of this Plan which states that: "...total excess risk may not exceed one in 10,000." achieved by adding the risks from groundwater and soil. The RAO should be to reduce the risk at the site, from all pathways to acceptable levels. In addition, CERCLA identifies 1E-4 as the point at which remediation is <u>required</u>, not the point at which it stops. Ideally remediation, once begun, should reduce risk to as close to 1E-6 as is possible within the CERCLA decision-making criteria. Strongly suggest the RAO be modified to comply with the NCP.

15. Page 19, *All Environmental Media*. It is not a reasonable presumption that a person might build a house inside the current ICPP fence, but drill a drinking water well outside the current fence. Thus establishing RAOs for the groundwater outside the fence <u>only</u> while allowing people to live within the fence is not acceptable or consistent. Choose - where will people live and get drinking water, inside or outside the fence? Be consistent!! If this results in different, less aggressive, remedial actions inside the fence, that is acceptable, just make it clear to the public.

16. Page 19, *Perched water and Surface Soils*. It is not a reasonable presumption that a person might build a house inside the current ICPP fence, but drill a drinking water well outside the current fence. Thus establishing RAOs for the groundwater outside the fence <u>only</u> while allowing people to live within the fence is not acceptable or consistent. Choose - where will people live and get drinking water, inside or outside the fence? Be consistent!! If this results in different, less aggressive, remedial actions inside the fence, that is acceptable, just make it clear to the public.

17. Page 20, Alternative Development, 1st paragraph. If actual technologies are modified after the ROD during remedial design, those modifications must be examined to see if they require an ESD or ROD amendment as described in CERCLA

guidance on preparing CERCLA Decision documents. The public has reviewed and commented on the Plan. Significant modifications after the ROD would diminish, or negate, the public participation process.

18. Page 23, Tank Farm Preferred Alternative. Grading to control surface water is an activity which should have been conducted as soon as there was reason to believe that surface water infiltration presented a risk. However, the agencies have not demonstrated, through published/measured Kds and measured infiltration rates, that surface percolation is a risk-driver at this site. Therefore selection of this alternative in a ROD is premature. It would better fit a removal action than a ROD.

19. Page 24, Soil under buildings, 1st paragraph. "...source releases are not well defined." Then stop this nonsense until they are well defined and appropriate remedial alternatives can be proposed and debated!! Removed this site and preferred alternative from this Proposed Plan.

20. Page 24, Soil under buildings, Alternative 2. This comment applies to all alternatives where land use restrictions are included as part of the Preferred Alternative. It is unclear how land use restrictions can be, or will be, imposed and documented. This BLM property is currently under DOE control. Will DOE provide a legal description of restricted property to the BLM? How will BLM control the restricted property? Please describe, in the ROD, how land use restrictions will be accomplished.

21. Page 27, Preferred Alternative. The preferred Alternative 2 calls for continuing existing environmental monitoring. What monitoring is currently underway? I know of no groundwater monitoring, in particular, which is intended, or capable, of detecting releases from any particular unit. How will the lack of such monitoring be deemed protective of human health and the environment? This Alternative is a "feel good" alternative because it makes the public feel good - because they don't know enough to realize they've been hoodwinked again. This alternative, as worded, is not acceptable.

    The last sentence states that the selected alternative is consistent with expected D&D activities. Since when is this a requirement of CERCLA? Do the agencies expect these D&D activities to be conducted as part of CERCLA? If so, what are the decision documents the public should expect to review prior to these activities?

22. Page 27, Other Surface Soils. Do these soils pass or fail TCLP? Is lead greater than 400 ppm?

23. Page 28, Alternative 4A, Preferred Alternative. 1st paragraph. Soil will be excavated to a depth of 10 feet and covered with "clean" fill. No mention is made that this alternative will, or will not, be protective of groundwater. Contamination, at depth, seems to be a threat to groundwater at the tank farms. Why is similar contamination not a threat to groundwater at these sites?

24. Page 28, Alternative 4A, Preferred Alternative. 1st and 3rd paragraphs. Facility capacity is expected to be 510,000 yd^3. CERCLA is expected to use about 466,000 yd^3. What waste is expected to fill the remaining, seemingly excess, capacity? I trust that only CERCLA-related waste will be admitted to the facility.

    The first paragraph gives an estimated volume of 82,000 yd^3. The third paragraph estimates a total volume of CERCLA waste at 466,000 yd^3. Subtracting, one finds that the agencies plan on placing about 384,000 yd^3 of waste from other sites. Please provide details of what these other sites might be.

25. Page 28, Alternative 4A, Preferred Alternative. 4th paragraph. Please define what wastes are "suitable for disposal" at this disposal facility.

    The agencies have always been vague about the definition of AOC for WAG 3 and other WAGs. The "AOC" has varied, depending on what was "convenient" at the time. As an example, refer to the removal action conducted for the electrical system upgrade. For that removal action, the AOC was defined very strictly around each Operable Unit. Now the agencies want to make it much broader. This is not consistent. Also, the area proposed for the ICDF cannot be part of the AOC since it is not part of "continuous or contiguous" contamination associated with WAG 3. The ICDF cannot be considered part of the WAG 3 AOC.

    The concept of the ICDF is flawed and unacceptable. It does not afford sufficient protection to the Snake River Aquifer since it will eventually leak (refer to the recent discovery at Envirocare of 2500 gallons of leachate between the liners). How will INEEL manage/dispose of leachate from this facility? Bonneville county was not allowed to construct a municipal landfill over the aquifer, why should DEQ allow construction of a hazardous/PCB waste landfill over the same aquifer? DEQ should be consistent in their application of requirements to protect the aquifer. Will

this landfill accept only PCB waste between 50 and 500 ppm PCBs, or will it accept >500 ppm PCBs?

26. Page 28, Alternative 4A, Preferred Alternative. 3rd paragraph. While the proposed ICDF will be outside the 100 year floodplain and thus be acceptable under both RCRA and TSCA, how long will the radioactive portion of the waste present a risk to the environment? DOE Order 5820.2A requires a risk assessment for the rad portion of the waste. What are the results of this risk assessment?

27. Page 32, Preferred Alternative. Please make it clear to the public, that if the ICDF is determined to be within the WAG 3 AOC, that RCRA hazardous waste may be placed into the facility without treatment to meet LDRS.

28. Page 32, Perched Water, Alternative 1. This paragraph is inconsistent. It first states that "controls will remain in place until 2095". Then it backpedals and states that perched water monitoring will only take place for 20 years after the ponds are taken out of service. Which is it? Be clear. What if perched water is still present 20 years after the ponds are taken out of service?

29. Page 33, Alternative 2. The last sentence refers to the OU3-14 RI/FS studying the effects of the Big Lost and STP on the perched water. I thought the OU3-14 project was limited to the tank farm, not the perched water; not the Big Lost; not the STP. If a strong connection exists between the tank farm and the perched water, then the perched water site should be removed from this Proposed Plan and included in the OU3-14 Plan and ROD.

    There is no mention that most of the contamination in the perched water is believed to have come from the tank farm. There is no mention that the perched water is contaminated with RCRA listed waste. Please inform the public of these important facts.

30. Page 34, second paragraph. The perched water under ICPP is considered to be "waters of the state" and is covered by Idaho Groundwater Protection regs as well as Idaho Water Quality stds., ARARS for this OU. Alternative 2 does very little to actively pursue compliance with these requirements, these ARARS. Please do not boldly state that Alternative 2 meets all of the ARARS. It does not. The agencies are lying to the public again.

31. Page 34 and 35, short- and long-term effectiveness. No mention is made of contaminants already present in the

basalt and interbeds. Will these be released in the future and cause an impact on the perched, and deep, aquifers? What Kd studies have been done to support your answer?

32. Page 36, 1st partial paragraph. Phase 2 addresses diverting or lining the Big Lost river and/or taking action on the STP perched water. I thought these sources were going to be investigated as part of OU3-14. Please pick one and stay with it. Are the Big Lost and STP to be addressed as part of this ROD, or as part of OU3-14?

33. Page 36, Snake River Plain, 1st paragraph. "The COCs are mostly radionuclides and mercury." Please identify the part of the COCs which are not radionuclides and mercury. Page 15 (sidebar) lists only Chromium as an additional COC. Are there others?

34. Page 36, Alternative 2A. Please explain how "additional monitoring" effects "limit exposure". I don't understand how monitoring reduces exposure, yet this claim is being made. Please explain how the first leads to the second.

    How far downgradient will production wells be protected? CFA? RWMC? The rest stop on highway 26? Please be specific. What contaminant(s) are these wells threatened by? Please be specific.

    Are contaminants found in the perc pond water a threat? Or the inventory of contaminants in soil/basalt above the perched water? If the later, how have the agencies determined the Kd which demonstrate that this inventory is a threat to the aquifer? Which of the contaminant(s) in the soil/basalt are a threat? Over what time frame?

35. Page 37, Alternative 2B, 2nd paragraph. From what portion of the aquifer will these quarterly samples be taken? Will the samples be diluted with less-contaminated portions of the aquifer above or below that which bears the highest I-129 concentrations? I fear the agencies will take their samples, declare that actions levels are met, due to dilution, and then decide that remedial action is not required. If this is your intent, state it clearly so that everyone knows what the true "Plan" is. In any case, this information should already be known following the RI/FS. When will the agencies conduct a decent investigation followed by identification of possible remedial alternatives? These activities are to be conducted BEFORE the ROD, not AFTER. I demand this OU be removed from the ROD pending further investigation and completion of a proper RI/FS.

36. Page 40, Alternative 2. "This alternative will also include initial site characterization..." The time for site characterization during the RI/FS, not AFTER the ROD. This proposal is unacceptable. Remove this site from the Proposed Plan and ROD until proper characterization has taken place. Any remedial alternative developed after site characterization should include treatment for potentially contaminated soils (primarily acetylene and acetone).

37. Page 43, first partial paragraph. "...should the cylinders burst from over-pressurization." Please identify the mechanisms which would cause "over-pressurization". These cylinders are buried and experience very small changes in temperature. No gas is being added to the cylinders. Are the gases dissociating, increasing the molar volume? Is the liquid acetone vaporizing, increasing the pressure? I doubt it. Again, please identify the mechanism by which over-pressurization might occur. I might agree that cylinder corrosion might allow escape of gas and liquid, but this would not be "over-pressurization"; and it would likely not be catastrophic. If "over-pressurization" cannot occur, please identify the imminent safety hazard associated with this site. If this is not possible, remove this site from the Proposed Plan. If this statement reflects the technical abilities of the agencies' investigators, it's no wonder the INEEL CERCLA program is in such trouble.

38. Page 43, SFE-20. This site has not been shown to be a release site, or that of an imminent release. The tank likely holds hazardous waste and should have been placed on the RCRA Part A application. Properly characterize this tank. If it holds hazardous waste, it should be addressed through RCRA Closure. If it doesn't hold hazardous waste then it should be addressed through D&D. Remove it from this Proposed Plan. If the vault has leaked, then address those releases through CERCLA, not the tank and vault.

39. Page 43, Alternative 1. There is no site-specific environmental monitoring, to my knowledge, at this site. Don't state there is; it's a lie.

40. Page 43, Alternative 4. What types of treatment will the debris (steel and concrete) be subject to? Will this treatment be conducted on site?

    What are the levels of alpha contamination in this waste; in the debris? Will these alpha levels be acceptable at the ICDF; at Envirocare? If the answers to these questions are not known, then the agencies are once again planning

remedial actions without adequate characterization. This may lead to embarrassment when "orphan" waste is generated. Remove this site from the Proposed Plan. If left in the Plan, be much more specific about what will be done with the waste.

41. Page 47, Table 10. What is the cumulative risk from ALL of these sites? Risk should be calculated across ICPP from all of the CERCLA sites, not just those chosen for inclusion in the Proposed Plan. Please state the cumulative risk from all CERCLA sites at ICPP.

42. Page 49, 1st partial paragraph. Please identify where the CERCLA process stops, both at this site and at the INEEL. This paragraph hints that CERCLA may be a permanent program at the INEEL. I don't believe this was the intent of either the FFA/CO or the RCRA Part B permit. When does the FFA/CO end and the RCRA Corrective Action process begin? Routine operational releases should not be included as new sites under the FFA/CO. They must be addressed through spill cleanup, or if a SWMU, through RCRA Corrective Action. Once the RODs are written for OU3-14 and WAG 10, the CERCLA process at ICPP should be complete, except for the "5-year" reviews and ongoing remediation. There should be no "new sites" under CERCLA.

As Always,
Christinna